

CLAIMS

1. Electrical power supply distribution apparatus comprising:
a conduit including at least one elongate conductor, the conduit having an
opening through which a connector is able to be inserted to connect
electrically with the conductor;
a plurality of conductive members disposed between the opening and the
conductor, each conductive member being separately supported and
resiliently displaceable by a said connector to provide access to the
conductor.
2. Electrical power distribution apparatus according to claim 1, further
comprising a plurality of resilient support members.
3. Electrical power distribution apparatus according to claim 2, wherein each
conductive member is resiliently supported by a respective support member.
4. Electrical power distribution apparatus according to claim 2 or 3, wherein
each support member resiliently biases the conductive members towards
the opening.
5. Electrical power distribution apparatus as claimed in any one of claims 2 to
4, wherein each conductive member has a sheet-like surface and a side
portion engaging the support member.

6. Electrical power distribution apparatus as claimed in claim 5, further comprising two opposed side portions.
7. Electrical power distribution apparatus as claimed in claim 5 or 6,
5 wherein the or each portion is of winged form.
8. Electrical power distribution apparatus according to claim 7, wherein each support member has side sections corresponding to the winged portions of the conductive member.
- 10 9. Electrical power distribution apparatus according to any one of the preceding claims, wherein each support member further comprises a support portion for supporting a said conductive member and a base connected to the support portion, whereby the support portion is
15 resiliently displaceable towards the base.
10. Electrical power distribution apparatus according to claim 9, wherein the support member has a resilient portion extending towards the base.
- 20 11. Electrical power distribution apparatus according to claim 10, wherein the support member comprises a further resilient portion extending towards the base.
12. Electrical power distribution apparatus according to claim 10 or 11,
25 wherein the or each resilient portion has a central void.

13. Electrical power distribution apparatus according to claim any one of claims 10 to 12, wherein the or each resilient portion has a depression facing the base.
- 5 14. Electrical power distribution apparatus according to claim 13, wherein the base has an abutment surface arranged to engage the depression.
- 10 15. Electrical power distribution apparatus according to any one of claims 10 to 14, wherein the resilient portion is oval-shaped.
16. Electrical power distribution apparatus according to any one of claims 2 to 15, wherein the support member is formed from plastic material.
- 15 17. Electrical power distribution apparatus according to any one of claims 2 to 16, wherein the support member comprises means to align the support member with a like support member.
- 20 18. Electrical power distribution apparatus according to claim 17, wherein the alignment means is in the form of a lug and a corresponding slot for receiving a said lug of a like support member.
- 25 19. Electrical power distribution apparatus according to any one of claims 2 to 18, wherein the support member includes means for connecting to the conductive member.

20. Electrical power distribution apparatus according to claim 19, wherein the connection means is in the form of a catch.

5 21. Electrical power distribution apparatus according to any one of claims 2 to 20, wherein the conductive member includes means for connecting to the support member.

10 22. Electrical power distribution apparatus according to claim 21, wherein the connection means is in the form of a clip.

23. Electrical power distribution apparatus according to any one of claims 2 to 22, further comprising an elongate tray for receiving the plurality of support members.

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24. Electrical power distribution apparatus according to claim 23, wherein the tray is formed from conductive material.

20 25. Electrical power distribution apparatus according to claim 24, wherein the tray is electrically connectable to each conductive element.

25 26. Electrical power distribution apparatus according to any one of claims 23 to 25, wherein the tray comprises a plurality of spaced arched strips, each strip being arranged to locate within a slot of a said support member.

27. Electrical power distribution apparatus according to any one of the preceding claims, wherein the conductive member occludes the opening.
- 5 28. Electrical power distribution apparatus according to any one of the preceding claims, wherein the conductive member seals the opening.
29. Electrical power distribution apparatus according to any one of the preceding claims wherein the conductive members forms an earth
10 connector.
30. Electrical power distribution apparatus according to any one of the preceding claims, wherein the plurality of conductive elements are spaced apart from each other.
- 15 31. A support member for use in the electrical power supply distribution apparatus according to any one of claims 2 to 30.
32. Electrical power distribution apparatus according to claim 1, wherein
20 each conductive member includes an abutment surface and two side legs extending from the surface, the side legs resiliently supporting the abutment surface.
33. Electrical power distribution apparatus according to claim 32, wherein the
25 abutment surface is in the form of a steel cap.

34. Electrical power distribution apparatus according to claim 32, wherein the side legs are arcuate in shape.
- 5 35. Electrical power distribution apparatus according to claim 32, further comprising an elongate tray for receiving the plurality of conductive members.
- 10 36. Electrical power distribution apparatus according to claim 35, wherein the legs of the conductive members have lugs arranged to be received in corresponding slots formed in the elongate tray.
- 15 37. An electrical connector comprising first and second electrical contacts arranged to engage corresponding conductors of an electrical power supply distribution apparatus to provide a power inlet, the contacts being disposed at opposed ends of an arm rotatable between a first position in which the contacts are arranged to disengage from the conductors and a second position in which the contacts are arranged to engage with the conductors,
- 20 a connection member arranged to provide a power outlet; and a switching device operable to connect or disconnect one of the contacts to the connection member in response to the rotation of the arm.
- 25 38. An electrical connector according to claim 37, further comprising an actuating member rotatable in response to the rotation of the arm for

actuating the switching device to connect or disconnect said contact to the connection member.

39. An electrical connector according to claim 38, wherein the actuating member is arranged to actuate the switching device to connect said contact to the connection member after the arm is rotated to the second position.
40. An electrical connector according to claim 38 or 39, wherein the actuating member is arranged to actuate the switching device to disconnect said contact from the connection member before the arm is rotated to the first position.
41. An electrical connector according to any one of claims 37 to 40, wherein the switching device comprises a lever movable between a first position in which the lever is arranged to electrically disconnect the contact from the connection member, and a second position in which the lever is arranged to electrically connect the contact to the connection member.
42. An electrical connector according to claim 41, wherein the switching device further comprises means for moving the lever between the two positions, the moving means being actuated by the actuating member.
43. An electrical connector according to claim 42, wherein the moving means includes

a plunger and a rocker arm connected to the plunger, the plunger being coupled to the lever and arranged to urge the lever between the two positions in response to the movement of the rocker arm, the rocker arm being arranged to be actuated by the actuating member.

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44. An electrical connector according to any one of claims 37 to 43, further comprising means for producing a sound when the arm is in the first position.

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45. An electrical connector according to any one of claims 37 to 44, further comprising means for producing a sound when the arm is in the second position.

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46. An electrical connector according to any one of claims 37 to 45, wherein the connection member is in the form of a female member arranged to receive a male member of an electrical plug.

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47. An electrical connector according to any one of claims 37 to 45, wherein the connection member is arranged to be connected to an electrical wire.

48. An electrical connector according to any one of claims 37 to 47, wherein the contacts are disposed on two separate arms.

49. An electrical connector comprising

first and second electrical contacts arranged to engage corresponding
conductors of an electrical power supply distribution apparatus to provide
a power inlet, the contacts being disposed at opposed ends of an arm
rotatable between a first position in which the contacts are arranged to
5 disengage from the conductors and a second position in which the
contacts are arranged to engage with the conductors,
a connection member arranged to provide a power outlet; and a
switching device operable to connect one of the contacts to the
connection member after the contact has engaged the corresponding
10 conductors of the power distribution apparatus.

50. *An electrical connector comprising*
first and second electrical contacts arranged to engage corresponding
conductors of an electrical power supply distribution apparatus to provide
15 a power inlet;
a connection member arranged to provide a power outlet; and
a switching device operable to connect one of the contacts to the
connection member after the contact has engaged the corresponding
conductors of the power distribution apparatus.

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